

**Notice of Allowability**

Application No.

10/698,019

Examiner

Wilson Lee

Applicant(s)

LYS ET AL.

Art Unit

2163

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/24/06 (RCE).
2. ☒ The allowed claim(s) is/are 1-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



Wilson Lee  
Primary Examiner  
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**Allowable subject matter**

Claims 1-42 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art neither discloses nor suggests the following limitations, in combination with the remaining elements as disclosed in independent claims:

- one LED-based lighting fixture mechanically coupled to the track housing, electrically coupled to the at least one pair of electrically conductive tracks, and configured to be responsive to the data, the at least one LED-based lighting fixture including a fixture housing and a plurality of LEDs disposed within the fixture housing, the plurality of LEDs configured to generate sufficient visible light so as to provide an effective amount of ambient illumination in an environment to be occupied by an observer of the ambient illumination such as required by claim 1;
- at least one controller coupled to the at least one pair of electrically conductive tracks and configured to control the at least one LED-based lighting fixture, based at least in part on the data, using a pulse width modulation technique such as required by claim 5;
- the at least one controller is configured to independently control at least the first intensity of the first radiation and the second intensity of the second radiation output by the at least one LED-based lighting fixture using a pulse width modulation technique such as required by claim 7;

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- a controlled waveshape driver coupled to the at least one pair of electrically conductive tracks and configured to reduce radio frequency radiation from the apparatus such as required by claim 8;
- A LED-based lighting fixture mechanically coupled to the housing electrically coupled to the at least one pair of electrically conductive tracks, and configured to be responsive to the data, wherein the at least one pair of electrically conductive tracks includes only one pair of electrically conductive tracks to provide both the power and the data in parallel to the plurality of lighting fixtures such as required by claim 9;
- the housing includes an extruded aluminum track such as required by claim 13;
- the at least one pair of electrically conductive tracks includes a controlled impedance medium such as required by claim 15;
- at least one termination coupled to the at least one pair of electrically conductive tracks and configured to compensate at least in part for an inductive effect of the at least one pair of electrically conductive tracks such as required by claim 18;
- at least one termination coupled to the at least one pair of electrically conductive tracks and configured to clamp a voltage a signal providing the data to a maximum of approximately +5 volts and a minimum of approximately -5 volts such as required by claim 20;

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- at least one LED-based lighting fixture mechanically coupled to the housing, electrically coupled to the at least one pair of electrically conductive tracks, and configured to be responsive to the data; and at least one termination coupled to the at least one pair of electrically conductive tracks and configured to absorb electrical energy that would otherwise be reflected on the at least one pair of electrically conductive tracks such as required by claim 21;
- At least one LED-based lighting fixture mechanically coupled to the track housing, electrically coupled to the at least one pair of electrically conductive tracks, and configured to be responsive to the data, the at least one LED-based lighting fixture including a fixture housing and a plurality of LEDs disposed within the fixture housing; and B) generating sufficient visible light from the plurality of LEDs, in response to at least the data, so as to provide an effective amount of ambient illumination in an environment to be occupied by an observer of the ambient illumination such as required by claim 23;
- an act of processing at least the data so as to control the at least one LED-based lighting fixture using a pulse width modulation technique such as required by claim 26;
- an act of processing the data so as to independently control at least the first intensity of the first radiation and second intensity of the second

- radiation output by the at least one LED-based lighting fixture using a pulse width modulation technique such as required by claim 28;
- a step of conditioning at least one signal on the at least one pair of electrically conductive tracks so as to reduce radio frequency radiation from the apparatus such as required by claim 29;
  - the housing includes an extruded aluminum track such as required by claim 30;
  - the plurality of lighting fixtures including at least one LED-based lighting fixture mechanically coupled to the housing, electrically coupled to the at least one pair of electrically conductive tracks, and configured to be responsive to the data, wherein the at least one pair of electrically conductive tracks is mechanically coupled to the housing via at least one electrical insulator, and wherein the housing includes an extruded aluminum track such as required by claim 33;
  - the at least one pair of electrically conductive tracks includes a controlled impedance medium such as required by claim 35;
  - a step of compensating a signal providing the data at least in part for an inductive effect of the at least one pair of electrically conductive tracks such as required by claim 38;
  - a step of clamping a voltage of signal providing the data to a maximum of approximately +5 volts and a minimum of approximately -5 volts such as required by claim 40;

- the plurality of lighting fixtures including at least one LED-based lighting fixture mechanically coupled to the housing, electrically coupled to the at least one pair of electrically conductive tracks, and configured to be responsive to the data; and B) conditioning at least one signal providing the data so as to reduce distortion of the at least one signal by absorbing electrical energy that would otherwise be reflected on the at least one pair of electrically conductive tracks such as required by claim 41.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **Foreign priority**

The foreign priority benefits under Title 35, U.S.C. 119(a)-(d) is not granted because the identified application US98/17702 is not filed in a foreign country.

#### **Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Wilson Lee", written over a horizontal line.

Wilson Lee  
Primary Examiner  
U.S. Patent & Trademark Office

6/26/06